

WHAT IS CLAIMED IS:

1. A method of manufacturing a heat pipe construction, comprising the steps of:  
providing a tubular pipe having at least one open end;  
forming a thermally conductive material around said tubular pipe;  
filling said tubular pipe with heat pipe media via said at least one open end; and  
closing said at least one end with said heat pipe media sealed therein.
2. The method of Claim 1, wherein said step of providing a tubular pipe comprises providing a tubular pipe manufactured of metal.
3. The method of Claim 1, wherein said step of forming a thermally conductive material around said tubular pipe comprises overmolding a thermally conductive polymer composition around said tubular pipe.
4. The method of Claim 1, wherein said step of forming a thermally conductive material around said tubular pipe comprises casting a thermally conductive metallic material around said tubular pipe.
5. The method of Claim 1, further comprising:  
insert molding heat dissipating elements in said thermally conductive material around said tubular pipe.
6. The method of Claim 4, wherein said step of casting a thermally conductive metallic material around said tubular pipe comprises casting aluminum around said tubular pipe.
7. The method of Claim 1, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with water.
8. The method of Claim 1, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with ammonia.

9. A method of manufacturing a heat pipe construction, comprising the steps of:  
providing a tubular pipe with an open end;  
casting a metallic material around said tubular pipe leaving said open end free of metallic material;  
filling said tubular pipe with heat pipe media via said open end; and  
closing said open end with said heat pipe media sealed therein.
10. The method of Claim 9, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with water.
11. The method of Claim 9, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with ammonia.
12. A method of manufacturing a heat pipe construction, comprising the steps of:  
providing a tubular pipe with an open end;  
overmolding a polymer composite material around said tubular pipe leaving said open end free of polymer composite material;  
filling said tubular pipe with heat pipe media via said open end; and  
closing said open end with said heat pipe media sealed therein.
13. The method of Claim 12, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with water.
14. The method of Claim 12, wherein said step of filling said tubular pipe with heat pipe media comprises filling said tubular pipe with ammonia.